A NEW FOSSIL MOTH FROM FLORISSANT.

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Many years ago, a fossil insect, supposed at the time to belong to Trichoptera, was found by Mr. Geo. N. Rohwer at Station 14 in the Miocene Shales of Florissant, Colorado. By some oversight, it had not been studied until yesterday, when I took it out to show to some students as an example of a fossil caddis-fly. A little examination revealed unexpected characters, and upon close study it was found that we had no caddis, but a moth. With the higher power of the binocular it was easy to see the scales, which thickly covered the anterior wings. On one side the wings are spread, so that their outline can be clearly seen; but I cannot make out the venation of the hind wings, nor that of the anal area of the anterior pair. It is also difficult to see exactly the condition at the apex of the cellula intrusa, but I believe I have drawn it correctly, in which case it presents no unique features. The genus may be definitely referred to the Cossidæ, and the general aspect is not unlike that of species of *Zeuzera*, *Givira* or *Comadia*. The abdomen, which I have drawn thick and short, is evidently lacking the apical part, and it may well have been long as in most existing Cossidæ.

Adelopsyche new genus

Rather small, thick bodied moths, the anterior wings long, with subparallel margins, broadly rounded at apex, heavily scaled, without spots or bands, but probably finely speckled. Scales fairly broad, suboval or more elongate, apically bidentate. Veins strong, basally stout; R_1, leaving common stem about as far from radial cell as length of that cell; radial cell small, cuneiform, emitting the quite simple R_2 and R_3; from the end of the cell (in the sense of lepidopterists,) and above the median cell or cellula intrusa, arise R_4, R_5 and M_1, the first two (which are simple to the end) well apart, but R_5 and M_1 from a common

point; median cell short, its lower apical corner emitting M_2; M_3, Cu_{1A} and Cu_{1B} (in sense of Tillyard) coming off as in related genera, Cu_{1A} distinctly nearer to M_3 than to Cu_{1B}.

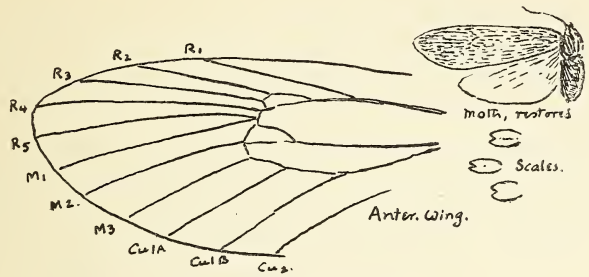

FIG. 1. ADELOPSYCHE FRUSTRANS SP. NOV.

Adelopsyche frustrans new species.

Anterior wing 15 mm. long and 4.5 broad, probably brown or dark gray in life; hind wing about 9.7 mm. long; width of thorax and abdomen, which are dark, nearly 4 mm.; legs not very robust.

In having the veins R_2, R_3, R_4 and R_5 all arising separately, this differs from the American genera (which are well figured by Barnes and McDunnough) and resembles the Australian genus *Macrocyttara* Turner (Trans. Ent. Soc. London, 1918, p. 169). It differs at once from *Macrocyttara* in having R_1 arising before the radial cell (as in *Givira* and other genera), and R_4 and R_5 arising below it. The separate origin of R_1 is considered by Jefferis Turner to be more primitive than the condition in *Macrocyttara*. Outside of *Macroscyttara,* the nearest allies of our fossil are *Cossodes* (Australia) and *Dudgeona* (Australia, India, Africa); these however are very distinct. The fossil genus *Gurnetia* (Cockerell. Ann. Mag. N. Hist. June 1921, p. 472), from the Isle of Wight, agrees in having the branches of the radius separate, while R_5 and M_1 come from beneath the radial cell. Cu_1 and Cu_2 of my figure of *Gurnetia* are Cu_{1A} and Cu_{1B} of Tillyard.